LEVIATHAN MINE SUPERFUND SITE

Community Involvement Plan

June 2004

COMMUNITY INVOLVEMENT HELPS SHAPE CLEANUP DECISIONS

This Community Involvement Plan (CIP) for the Leviathan Mine Superfund Site (Site) provides a framework for public involvement activities at the site. It is a living document meant to reflect the needs of the community over the life of the project. The U.S. Environmental Protection Agency (EPA) believes that effective community involvement helps project staff make better decisions during investigation and cleanup of sites. This CIP describes past community outreach activities related to the Leviathan Mine Site and outlines plans for future public involvement in the cleanup of the site. EPA welcomes your ideas on how to make our public outreach strategy most effective.

LEVIATHAN MINE SUPERFUND SITE

A healthy environment and a thriving watershed are important to all California and Nevada citizens, especially those who live near and use the different creeks in the Leviathan watershed of Alpine County. However, the watershed has been impacted by the former Leviathan Mine, one of the world's largest open-pit sulfur mines, which has been operating intermittently since 1863. Water from Leviathan Creek that flows through the former Leviathan Mine site becomes impacted when it contacts sulfur and metals-bearing rock, which are remnants from the acid-generating mine waste. In addition to Leviathan Creek, Bryant and Aspen Creeks and

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Aerial photo of Leviathan Mine

Table of Contents

the East Fork of the Carson River have also been impacted.

The EPA Region 9 office, based in San Francisco, California, is responsible for overseeing the Leviathan Mine Superfund Site cleanup work currently being performed by the potentially responsible parties (PRPs), the Atlantic Richfield Company (ARC) and the California Regional Water Quality Control Board, Lahontan Region (LRWQCB). EPA became involved with the Site because of a request from the Washoe Tribe of Nevada and California who feared their tribal land and culture were being impacted by contamination from the mine.

The cleanup project is a collaboration of many entities, including affected and interested communities, and local, state, federal and tribal agencies. It is a partnership designed to better understand the impact of the mine and plan and implement a long-term cleanup that would operate year-round to protect human health and the environment. Part of this collaborative effort involves the natural resource trustees who are: The Washoe Tribe of Nevada and California, the states of California and Nevada, the U.S. Forest Service, the U.S. Fish and Wildlife Service and the Bureau of Indian Affairs. These entities have been working together with EPA since 1997 to control the acid mine drainage from Leviathan Mine, using innovative methods to successfully treat the four million gallons of contaminated water that accumulate yearly at the Site. In addition to the importance of the trustees working together, EPA relies on regular input from local stakeholders such as counties, water districts and community members. All of these partnerships are critical to making the best decisions about cleaning up Leviathan Mine, and input from stakeholders is welcomed and encouraged throughout the process.

COMMUNITY INVOLVEMENT PLAN OBJECTIVES

The overall goal of EPA's Community Involvement Program is to promote two-way communication between citizens and EPA and to provide the community with meaningful opportunities to work within the Superfund process. Four community involvement objectives are identified in this CIP, and a series of activities are proposed to help EPA meet these objectives. As cleanup of the Site proceeds, the Agency will continue to evaluate which activities meet the needs of the public. At any time, if you or another member of your community identify a specific activity or tool that can aid your participation in the cleanup process, please let EPA know. All community involvement activities at the Site will be overseen by the EPA community involvement coordinator and the remedial project manager (see box below and Appendix A for contact information).

Contact Information

EPA welcomes your comments and ideas regarding the Site. To provide input or pose questions, contact:

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Please leave a message and your call will be returned.

Community Involvement Plan Objectives

1. Provide public participation opportunities which will effectively incorporate community concerns into cleanup decisions.

2. Provide accurate, regular and timely information about Site conditions and treatment activities for the Leviathan Mine Superfund Site.

3. Identify affected communities and key stakeholders and establish regular and open dialogue to respond to questions, concerns and conflicts as they arise.

4. Meet or exceed statutory requirements regarding public notice and opportunities for public involvement.

PUBLIC OUTREACH STRATEGY

The following section identifies public outreach activities that may be used to help satisfy the objectives outlined above. These activities are helpful tools to keep the public informed and involved; they are options that both the Agency and the community can consider as the cleanup proceeds.

Provide public participation opportunities which will effectively incorporate community concerns into cleanup decisions

Public Review of Documents: Local information repositories have been established so that information pertaining to the Site can be easily accessed by the public. These repositories contain current information, technical reports and reference documents on the Superfund Site, along with Technical Assistance Grant information (see Appendix F). Information repositories for the Leviathan Mine Superfund Site are the Nevada State Library and Archives in Carson City, Nevada, the Douglas County Public Library in Minden, Nevada and the Alpine County Library in Markleeville, California. Documents pertaining to the Site can also be found at the Superfund Records Center at EPA Region 9 in San Francisco. Address and hours of operation for the libraries and Records Center can be found in Appendix C.

Technical Assistance: A Technical Assistance Grant (TAG) provides funds for a qualified citizen group to hire an independent technical advisor to help them understand and comment on technical decisions relating to Superfund cleanup actions. For more information on TAGs go to www.epa.gov/superfund/tools/tag or contact the community involvement coordinator listed in Appendix A.

Informal Communication: The remedial project manager and community involvement coordinator are always willing to speak to or meet with stakeholders and community members to discuss the cleanup as well as to keep up-to-date on community issues and concerns. In addition, EPA staff are accessible by phone and email.

Provide accurate, regular and timely information about site conditions and treatment activities for the Leviathan Mine Superfund Site

Fact Sheets: EPA will continue to issue periodic fact sheets about cleanup activities, significant milestones in the investigation, technical information and project findings. Fact sheets will be mailed to the Site mailing list and will be posted on the Leviathan Mine page under EPA's web site: www.epa.gov/region09/waste/sfund

Meetings: The remedial project manager and community involvement coordinator are available to attend regularly scheduled meetings of community groups. EPA is also available to organize Site visits, open houses, workshops and community meetings. These types of gatherings are generally helpful at significant milestones in the cleanup process such as upcoming sampling activities and reporting. Public meetings will always be held to solicit

community input before EPA makes major cleanup decisions.

Project Mailing List: EPA will maintain and regularly update the Site mailing list to make sure stakeholders and other community members receive information about the Site. To get on the mailing list, send a request by e-mail, phone or mail to the EPA contacts listed in this CIP. The project mailing list currently includes approximately 450 people and organizations.

Web Site: EPA will maintain a project website where information about the project can be viewed. To access Leviathan Mine information, go to the main page of the Region 9 Waste and Superfund Divisions: www.epa.gov/region09/waste/sfund

Key Stakeholders

Leviathan Mine Council Trustees
- Washoe Tribe of Nevada and California
- Bureau of Indian Affairs
- US Forest Service
- US Fish and Wildlife Service
- Nevada Division of Environmental Protection
- California Department of Fish and Game

The Technical Advisory Committee
- Leviathan Mine Council (including EPA)
- Atlantic Richfield Company (ARC)
- California Regional Water Quality Control Board
- Carson Water Subconservancy District
- Alpine and Douglas Counties
- University of Nevada – Reno
- Desert Research Institute of the University of Nevada
- Other interested parties

Identify affected communities and key stakeholders and establish regular and open dialogue to respond to questions, concerns and conflicts as they arise

Community Dialogue: A number of discussions with community members were held by EPA between 1999 and 2002. Additional community interviews or meetings may be conducted as planning for the Remedial Investigation and Feasibility Study (RI/FS) phases continue.

Stakeholder Involvement: There are three stakeholder groups that meet on a regular basis and provide input regarding the Leviathan Mine Superfund Site. These groups include: the Leviathan Mine Council, a Technical Advisory Committee (TAC) and additional parties working with the TAC. Please refer to the box on this page for a complete list of the parties involved.

Meet or exceed statutory requirements regarding public notice and opportunities for public involvement

The EPA remedial project manager and community involvement coordinator will make sure all legal requirements for public involvement in the investigation and cleanup process for the Site are met or exceeded. These requirements include placing public meeting and other significant project activity announcements in local papers, as well as providing opportunities for public comment at project milestones or when documents proposing remedial actions are released.

In addition to meeting public involvement requirements, EPA staff will engage in public outreach at any time it is appropriate to do so. For example, a public meeting was held in May 2004 to allow public discussion on an Engineering Evaluation/Cost Analysis (EE/CA), which is a proposed early action EPA may take to quicken site remediation. Other examples of non-required community involvement activities would include Site fact sheets, open houses and community meetings.

The public may also be interested in the TAC which meets as needed during the year to discuss technical issues related to Leviathan Mine. Although focused on particular issues and typically held during the work day, the meetings are open to the public. Please feel free to contact the community involvement coordinator or the remedial project manager if you are interested in attending.

PROJECT BACKGROUND

One of the world's largest open-pit sulfur mines, the Leviathan Mine has been a site of contamination for many years. The Site poses a threat to human health and the environment from runoff of acidic drainage and the leaching of heavy metals from mine tailings. The most immediate problem, identified by stakeholders prior to EPA's involvement, occured during spring snowmelt and heavy rains, when drainage was at its greatest and the storage ponds (which contain acid drainage) would overflow. The high elevation of the mine location and harsh environmental conditions create a short work season in which to investigate the Site and carry out cleanup activities. However, EPA Early Response Actions have entirely prevented pond overflow from 2000 to the present.

Though a plan for Site investigation and cleanup has yet to be finalized, four main sources of creek contamination have been identified and are contained or treated (primarily through lime neutralization) during most of the year. They include: the Collection Ponds, the Channel Underdrain, the Aspen Seep and the Delta Seep. These contamination discharge sources are further described in the Site History section below.

SITE LOCATION

The Leviathan Mine Superfund Site includes approximately 253 acres of land located at 7,000 feet in elevation in a remote part of Alpine County, California, on the eastern slope of the central Sierra Nevada. The property is approximately 25 miles southeast of Lake Tahoe and six miles east of Markleeville, near the California-Nevada border. The mine site lies within the Bryant Creek watershed of the Carson River basin. Leviathan Creek and Aspen Creek flow through the Site.

Pond 1 and the bi-phasic treatment system

The Site lies within the aboriginal lands of the Washoe Tribe of Nevada and California. The Carson River basin covers more than 10,000 acres of Public Domain Trust Allotments held in trust for individual Indians by the Bureau of Indian Affairs (locally known as the Pine Nut Allotments). Sixteen of these allotments, covering approximately 2,560 acres, are within a 500-foot corridor along Bryant Creek and lie directly downstream from the Site. The Leviathan Mine Site is approximately nine miles upstream from the East Fork of the Carson River. The East Fork of the Carson River runs through Dresslerville, which is part of the Tribal reservation.

HEALTH CONCERNS

Acid mine drainage from Leviathan Mine is formed by rainfall, surface water and groundwater coming in contact with sulfide in the mine tailings, thereby creating sulfuric acid which leaches heavy metals from the mine tailings. These metals, including aluminum, arsenic, copper, iron and nickel, are present in amounts that could be harmful to public health and the environment, especially fish and other aquatic life. Hazardous substances and heavy metals can accumulate in the sediment, fish,

plants and animals. These metals can then be passed along to people who come in contact with the sediment and plants or consume contaminated fish or animals. At sufficiently high levels, these heavy metals can cause cancer, reproductive problems and damage to the liver and kidneys, as well as other physical ailments.

Water quality downstream from the mine is severely impacted by the acidic drainage. Untreated drainage can make the water in Leviathan Creek acidic and toxic to many forms of life. Before 2000, high volumes of acidic drainage occurred during the spring snowmelt and during heavy rains when the Site evaporation ponds overflowed and released acidic drainage directly into Leviathan Creek. Leviathan Creek then flows into Bryant Creek, which winds through U.S. Forest Service land, through the Washoe Tribal lands, and into the East Fork of the Carson River. Underground seeps and drainage from Aspen Creek contribute to acidic conditions as water moves through the Site and spills into Leviathan Creek. Typically, the worst stream conditions occur in the summer months when the toxic drainage is most concentrated. This is also the time of year when people use the creeks most.

The Carson River, as well as the affected Leviathan and Bryant Creeks, are major water sources for the region and important natural resources for the Washoe Tribe. The tribe has depended upon these waterways as cultural resources for centuries. They are also used for agriculture, ranching, and recreation such as camping and fishing. These creeks are historic habitat for the endangered Lahontan Cutthroat Trout. Maintaining this habitat is critical for a fish that now occupies a small fraction of its original range. Ensuring the river's health is a major concern as demand for water from the Carson River increases with more urban development in the Carson Valley.

SITE HISTORY

Leviathan Mine was opened in 1863 as a source of copper sulfate for processing silver ore at the Comstock Mine in Virginia City, Nevada. In 1872, the mine was shut down, but was reopened from 1935 to 1941 for the extraction of sulfur. During this time, the mine consisted of several adits (tunnels) carved from the hillside.

Open-pit mining of sulfur, and the first record of serious environmental damage associated with the mine, began when the property was purchased by the Anaconda Company in 1951. In the 1950s, massive fish kills occurred in the Carson River and Bryant Creek as highly acidic water flowed into Leviathan Creek.

Serious pollution continued for the next decade under Anaconda's control. Discussions were held between Anaconda and LRWQCB, the Nevada State Health Department, the Nevada Fish and Game Commission and the California Department of Fish and Game to discuss mitigation and clean-up measures. Anaconda undertook clean-up measures from 1955 to 1962, including diverting Leviathan Creek around a waste rock dump, neutralizing collected mine seepage with lime, constructing two injections wells, installing a concrete adit plug and building a plastic pipeline to move Leviathan Creek through one section of the mine. These containment and diversion structures were ultimately ineffective as they failed to hold the runoff caused by heavy spring rains and snow melt from the surrounding hillside.

Anaconda sold the property in 1962 to a local company. Under a state order, the company installed its own water diversion structures to bring the discharge into legal compliance but lacked the financial means to effectively address the problems. In 1980, $3.76 million from the Clean Water and Water Conservation Bond Act of 1978 was earmarked for LRWQCB to use in pollution abatement at Leviathan Mine.

Three years later, the State of California purchased the mine with the goal of cleaning it up. In 1983, LRWQCB began a major, two-year construction project, an effort that was aided by a $2.3 million settlement with Anaconda reached in 1984. (Anaconda had now become a subsidiary of ARC). LRWQCB took steps to minimize the amount of water mixing with mine waste, began revegetation to control erosion and built five new evaporation ponds to collect acidic drainage.

During construction, numerous unanticipated seeps and springs were discovered at the site. An underground system called the Channel Underdrain (CUD) was built to carry drainage away from the site and into Leviathan Creek. After nearly $6 million of construction, conditions improved, but enough acidic drainage remained to further contaminate the creek system.

EPA got involved in 1997 when the Washoe Tribe of Nevada and California, whose tribal lands lay directly downstream from the mine, contacted the Agency. Acidic drainage was continuing to overflow the evaporation ponds and contaminating Bryant Creek and the East Fork of the Carson River as they flowed through Washoe land. EPA attempted to treat and discharge collected pond water to provide sufficient capacity in the evaporation ponds to prevent overflows during the winter of 1997-1998 and spring of 1998. Due to technical challenges and a late start, the treatment system was not successful. A berm, however, was raised around the lowermost pond to increase its holding capacity.

In May 1998, EPA and ARC entered into an agreement requiring ARC to provide additional evaporation pond capacity to prevent overflows during the following winter and spring. The agreement required ARC to initiate a thorough site investigation and determine long-term remedial actions. However, by November 1998, only one-third of the additional storage capacity ARC had agreed upon had been achieved. In January 1999, the ponds started overflowing, and between January and July nearly nine million gallons of contaminated water had run into Leviathan Creek.

In 1999, LRWQCB started treating the acidic drainage with a method called bi-phasic treatment. Bi-phasic treatment involves neutralizing the polluted water with an alkaline substance such as lime, which causes the toxic minerals to form heavy particulates. The particulates create a sludge that can then be separated from the clean water. LRWQCB demonstrated that bi-phasic treatment of acidic drainage could meet current pH standards. LRWQCB treated approximately 4.5 million gallons of acidic drainage to a pH level acceptable for discharge into Leviathan Creek.

The winter of 1999-2000 brought heavy snowfall to the Sierra, making it all but certain that the Leviathan evaporation ponds would overflow that spring. LRWQCB, with EPA's approval and oversight, removed approximately 400,000 gallons of snowmelt from the surface of the frozen ponds, preventing any overflow that year. Approximately six million gallons of contaminated drainage was treated by LRWQCB and released to Leviathan Creek during the summer of 2000.

EPA worked with LRWQCB and ARC to design and implement a number of additional remedies to lessen the pollution, but with limited success. In summer 2000, the Leviathan Mine Site was added to the National Priorities List (NPL), EPA's list of serious uncontrolled or abandoned hazardous waste sites identified for long-term cleanup. This listing gave the Site special status which increased the Agency's enforcement authority in seeking cleanup.
That same year, EPA required that ARC submit plans for a phased long-term Remedial Investigation/Feasibility Study (RI/FS) to address contamination from the Leviathan Mine. EPA also required the company to submit a plan for dealing with the three sources of acidic

drainage not captured in the evaporation ponds. These three sources include:

- **The Channel Underdrain (CUD)** – the subsurface drainage system constructed by LRWQCB to carry acidic drainage from the channel and into Leviathan Creek below the channel
- **The Aspen Seep** – acid mine drainage that runs into Aspen Creek on the north side of the Leviathan Mine Site
- **The Delta Seep** – acidic drainage that occurs at the lowest elevation of the Leviathan Mine Site and runs into Leviathan Creek

During 2001 and 2002, ARC submitted draft plans for both the CUD and Aspen Seep. The seep of acidic drainage into Aspen Creek has been partly addressed by a demonstration treatment project operated by researchers from the University of Nevada - Reno using an innovative full-scale biological process that would potentially run year-round, thus overcoming the historical obstacle of winter inaccessibility. This is an important consideration when snowfall can prevent equipment access to the mine up to nine months out of the year. The biological system treated over 2.5 million gallons during 2001.

Water samples that are collected at numerous water monitoring stations are analyzed for total and dissolved metals such as aluminum, arsenic, cadmium, cobalt, chromium, copper, iron, magnesium, manganese, nickel, lead and zinc.

The most current water sampling data highlighting the amounts of arsenic and acidity levels is located in Appendix F.
The largest and most concentrated untreated releases of acidic drainage at the Site are from the CUD. For cleanup, ARC proposed neutralizing acidic drainage by passing contaminated water through a lime lagoon. This would reduce the dissolved concentrations of toxic metals in the acidic drainage and separate the solids from the water. The treated effluent would then be discharged to Leviathan Creek. By the end of the 2002 summer treatment season and during the 2003 summer treatment season, the Delta Seep was captured and treated along with the CUD.

During 2001, using bi-phasic treatment, LRWQCB was able to treat all of the highly contaminated water that had been stored in the evaporation ponds. LRWQCB believes that ongoing improvements to this process will allow even greater volumes of pond water to be treated in years to come. In addition, LRWQCB also separately treated one million gallons of non-concentrated mine drainage. Treating the new, less concentrated water showed this system could operate rapidly and reliably, giving us great hope for future treatment of ongoing mine drainage. What has been accomplished and learned from the summer's activities gave EPA a clearer picture of what remains to be done before EPA can propose a long-term cleanup plan for Leviathan Mine. These improvements are being used to help better define long-term risks and feasible alternatives to clean up the Site.

Below is the list of recent activities taken by LRWQCB, ARC and EPA to further reduce the contamination entering Leviathan Creek.

- An expanded, state-of-the-art biological treatment system controls acid rock drainage at the Aspen Seep.
- From 2000 to the present, LRWQCB's two-phase lime treatment process has completely prevented pond overflow of the most concentrated waste.
- In summer 2003, ARC expanded the treatment system of the CUD to prevent all known acid discharge from July through September.
- ARC and LRWQCB conducted trials in 2002 and 2003 specifically for the purpose of designing a year-round treatment system.

- LRWQCB revegetated many acres of barren waste piles to control erosion and limit infiltration.

- Year-round monitoring of surface water flow and water quality, along with annual or semi-annual sediment and biological sampling.

- To control pollution, LRWQCB: built a concrete channel to isolate the creek from the mine tailings; built a surface runoff collection system upstream of the tailings (also to isolate the tailings from water); installed a pond water treatment system to remove metals from the water before discharging back into Aspen Creek; revegetated the area to increase evaporation from soil or plants and reduce the amount of water coming in contact with the tailings; set up a sampling program; and developed sediment management practices.

While there is still much to be done at the Leviathan Mine Site, pollution from the acidic drainage has noticeably decreased and, during periods of treatment, water quality in Bryant Creek and Leviathan Creek has improved. The yellow sediment coating the bottom of the creek has diminished over previous summers.

COMMUNITY HISTORY

The area now known as Alpine County was first inhabited by the Washoe people, known today as the Washoe Tribe of Nevada and California. The earliest dwellers lived in and around the mountains and valleys of western Nevada and eastern California and spent their spring and summer around the shores of Lake Tahoe. The Tribe's aboriginal territory extended to the west of Lake Tahoe basin, north to Honey Lake, east to the Pine Nut Mountains and south to Antelope Valley, California. Washoe territory was in the path of immigrants and gold seekers headed for California. A few years after the 1849 California Gold Rush, the Comstock Lode was discovered in Virginia City, Nevada. Some of these migrants remained in or returned to Washoe lands to settle the mountains and valleys of the Sierra Nevada. The steady inflow of settlers brought a rapid decline to the Washoe people and to their way of life.

The federal government sporadically allotted land to individual Native Americans in the 1880s. These allotments, located on the western slope of the Pine Nut Mountains (referred to as the Pine Nut Allotments), hold significant spiritual value for the Washoe and have provided the Washoe with a livelihood of harvesting pine nuts as well as title to the land for future resources. Much of the arable land, valleys, and historic territory surrounding or near Lake Tahoe was claimed by settlers. The Washoe were left to camp at the edges of white settlements and ranches for access to work and food, and became concentrated in the ranching area of Carson City and around the Carson Valley. Some families remained on land near traditional settlement areas such as Woodfords and Sierra Valley.

At the time of the silver boom, Markleeville, California developed into a trade center for the ranching and lumber businesses, which supplied the burgeoning Comstock Lode mine. However, the interest in silver was brief, as the ore proved too difficult to mine at a profit, and many people left the area. A number of sawmills existed in Alpine County in the late 1800s. They supplied timber to fuel the mine and lumber needed for buildings on ranches and in settlements. One of the earliest was Cary's Mill (now Woodfords), which was in operation in the 1850s. Other mills were operated during the 1860s near Markleeville and Monitor. Markleeville continued as the supply center for local ranchers and farmers until the end of the 19th century.

In the 1880s, Faith and Hope Valleys were the center of the dairy industry. Settlers drove their herds to the high ranges for summer grazing and back down to the ranches in the fall. During the summer months, milk and butter were often sold at Silver Mountain and Virginia City, Nevada. Herds of sheep from the Carson Valley and California were driven to the mountain

ranges of Alpine County during the summer, often by Basque shepherds.

When mining activity was high, timber and cordwood was cut and floated down the East Fork of the Carson River each spring. Most of the accessible virgin yellow pine timber was quickly cut. Wood was transported to the river either by mule or wagon; however, the most expedient method was to bring it down by log flume. Flumes, enabled by temporary dams, were often built in creeks extending miles up the mountains. The trees were floated down to Empire, Nevada from which they were hauled via railroad to Virginia City.

In 1936, the first Constitution and By-Laws of the Washoe Tribe of Nevada and California were approved by the U.S. Department of the Interior. In 1970, 80 acres were acquired from the Bureau of Land Management to create the Woodfords Colony for Washoe who had been living on the allotments in Alpine County. These allotments, known as the Wade property, were deeded to the Washoe Tribe in 1976. The Washoe Reservation underwent a large expansion in the 1980s when the majority of the former Stewart Indian School lands were transferred to the tribe. Parcels acquired included the Stewart Ranch, Silverado, Upper and Lower Clear Creek and Stewart.

COMMUNITY PROFILE

Headquartered in Dresslerville, Nevada, the Washoe Tribal Council is a 12-member body composed of two representatives each from the Washoe community councils of Dresslerville, Carson, Woodfords, and Stewart, one representative from Reno-Sparks, representatives from the off-Reservation population, and the Tribal Chairman. The colonies have elected bodies, called councils, which meet and set meeting agendas based on their local issues.

Leviathan Creek below Station 15

Washoe lands are located within two states and nine counties and are adjacent to six National Forests, a Bureau of Land Management District, and the Tahoe Regional Planning Agency. Washoe tribal members continue to use resources within the original territory in a manner similar to their ancestors. This resource use includes: gathering of plant material for food, pine nut harvesting, medicine and basket weaving, as well as hunting and fishing.

Alpine County, located in northeastern California, is the least populated county in the state with nearly 1,200 people, and covers an area of 740 square miles. Most of the population is concentrated around the communities of Markleeville, Woodfords, Bear Valley, and Kirkwood. Markleeville is the county seat and home to many of the county offices. Since Alpine County has no incorporated cities, most public services are provided by county departments and agencies. Of Alpine County's total population of 1,192, approximately 74% of the residents are Caucasian, 19% Native American, 8% Hispanic, .6% Black, and .3% Asian Pacific Islander. The median household income is $41,875.

The median age for Alpine County residents is 39.3 years. The population profile is as follows: 20.8% are between the ages of five and 19 years, 64.1% are between the ages of 20 and 64, and 9.9% of the population is over 65. The labor force of Alpine County is 683 people. Of these, approximately 27% are employed as managers or professionals; approximately 27% in service occupations; nearly 25% in sales or administrative support; 10% as operators, fabricators or laborers; 9% in precision production and repair; 6% are self employed and 3% in farming, fishing or forestry.

The local economy is heavily dependent on tourism. Visitors come to the area for skiing, hiking, fishing, and other outdoor recreation activities. Approximately 630,000 non-residents come through Markleeville each year. The East Fork of the Carson River, which runs near the Site, supports commercial river guides who run the river in high water years. The river also generates economic activity associated with recreational trout fishing.

Land uses in Alpine County range from semi-rural to rural. Ninety-six percent of the county is in public ownership; therefore, private development of county land is low. Of the total acreage in public and private land, 75% of the acreage is held by the U.S. Forest Service and 1.1% is listed as timber production zones.

HISTORY OF COMMUNITY INVOLVEMENT AT THE SITE

EPA has been working with interested community members and agencies since 1997 and will continue to do so as efforts to control and treat the acid mine drainage progress and the Site moves through the Superfund process. Below is a summary of recent community involvement at the Site.

- EPA held a community meeting for Alpine county residents and officials on December 2, 1999, to discuss Site status and upcoming involvement.
- EPA held a public comment period for the proposed NPL listing of the Leviathan Mine Site in November-December 1999.
- EPA held a community meeting on May 24, 2000 at Carson Valley Middle School in Gardnerville, NV to update Douglas County residents on Site status.
- EPA held a community meeting on November 7, 2001, at the Washoe Community Center, regarding the affected Pine Nut Allotments and other Site-related issues of tribal interest.
- EPA held an open house and Site tour of Leviathan Mine on July 31, 2002.
- EPA sent fact sheets to the Site mailing list and distributed them at public meetings in February 1998, November 1999, November 2001 and April 2004.
- EPA held a public comment period for the Engineering Evaluation/Cost Analysis (EE/CA) for year-round treatment April 27-June 11, 2004 (15-day extension requested by several stakeholders was granted).
- EPA held a community meeting May 4, 2004 at Carson Valley Middle School in Gardnerville, NV to discuss the EE/CA and proposals for a year-round treatment system and to take public comments.

WHAT WE HAVE HEARD SO FAR

There is a substantial amount of community interest in the Leviathan Mine Site due to its effects on a broad cross-section of California and Nevada residents and users of the local watershed and natural resources.

Through a series of meetings and community interviews held between 1998 and 2002, EPA staff gathered information on community concerns regarding the Leviathan Mine Superfund Site. From these discussions, and through continued interactions with the affected communities, EPA hopes to provide a forum for dialogue throughout the process of investigation and remediation. EPA firmly believes that working with communities ultimately leads to better site cleanups.

The following is a brief summary of some major issues and concerns shared with EPA during the community interviews:

- Some stakeholders would like a health study to be performed.

- There are concerns about the possibility for getting sick from consumption of animals and plants such as deer, fish, watercress and tubers.
- Some stakeholders want the Site to be cleaned to pristine levels, as it was before mining occurred.
- There are concerns about contaminated groundwater and whether EPA will be setting up a regular groundwater monitoring program.
- Whatever steps are taken, community members feel that health and safety should be of paramount concern.
- Future work should be sensitive to the tribe's difficulty in defining (in a way appropriate to the bureaucratic process) the importance of resources and appropriate cleanup levels.
- There is concern that the floods of 1997 spread mine contamination over the whole Carson Valley.
- There is concern about children's health issues, especially since they play on river banks.
- Community members are concerned about increasing traffic on roads.
- There is concern about recreational uses of the area and its relation to local communities.
- Stakeholders want to be kept informed on a regular basis.
- Stakeholders noted that rights to the water from Leviathan and Bryant creeks have been assigned through a court decision. Any changes in the water availability need to take those water rights into account.
- Concern was expressed regarding how road access during the winter (for maintenance of a year-round treatment system) might affect forest management.
- Concern was expressed regarding road maintenance during winter and spring (for maintenance of a year-round treatment system) when the road surface is muddy.

WHO TO CONTACT ABOUT COMMUNITY INVOLVEMENT

This Community Involvement Plan is designed to be flexible. It reflects EPA's current knowledge about the community and its concerns, but it will need to be revised as conditions change. This plan is intended to be a working document, adapting as community concerns emerge and more information becomes available.

Questions, comments and requests can be directed to:

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Please leave a message and your call will be returned.

APPENDIX A
EPA Staff, Tribal Staff and Elected Officials

APPENDIX A – EPA STAFF, TRIBAL STAFF AND ELECTED OFFICIALS

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Please leave a message and your call will be returned.

WASHOE TRIBE OF NEVADA AND CALIFORNIA

Washoe Tribe of Nevada and California
Robert Greenbaum, Resources Policy Advisor
A. Brian Wallace, Chairman
919 Highway 395 South
Gardnerville, NV 89410
(775) 265-4191 (phone)
(775) 265-6240 (fax)

LOCAL ELECTED OFFICIALS

CALIFORNIA
Alpine County Board of Supervisors 2004
District 1: Donald Jardine
District 2: Herman Zellmer
District 3: Vacant
District 4: Terry Woodrow - Chair
District 5: Chris Gansberg, Jr.
P.O. Box 158
Markleeville, CA 96120
(530) 694-2287 (phone)
(530) 694-2491 (fax)

Judy Molnar
Assistant to the Board
P.O. Box 387
Markleeville, CA 96120
(530) 694-2287 (phone)
(530) 694-2491 (fax)

Alpine County Planning Commission and Department
Brian Peters, Director of Planning
17300 State Rte. 89
Markleeville, CA 96120
(530) 694-1878 (phone)
(530) 694-9599 (fax)

NEVADA
Douglas County Board of Commissioners 2004
District 1: James Baushke
District 2: Jacques Etchegoyhen
District 3: Bernard W. Curtis - Vice Chair
District 4: Tim D. Smith
District 5: Kelly D. Kite - Chair
Douglas County Administrative Services Building
P.O. Box 218
Minden, NV 89423
(775) 782-9821 (phone)
(775) 782-6255 (fax)

Carson Water Subconservancy District
Edwin James - General Manager
777 E. William Street, Suite 110 A
Carson City, NV 89701
(775) 887-9005 (phone)
(775) 887-7457 (fax)

STATE ELECTED OFFICIALS

CALIFORNIA

Assemblyman Tim Leslie - District 4
3300 Douglas Blvd. # 430
Roseville, CA 95661
(916) 774-4430 (phone)
(916) 774-4433 (fax)

Senator Thomas "Rico" Oller - District 1
4230 Douglas Blvd. #300
Granite Bay, CA 95746
(916) 969-8232 (phone)
(916) 783-5487 (fax)

NEVADA

Assemblyman Lynn Hettrick - District 39
1475 Glenwood Drive
Gardnerville, NV 89460
(775) 265-4473 (phone)
(775) 265-2680 (fax)

Senator Randolph J. Townsend - District 4
P.O. Box 20923
Reno, NV 89515
(775) 954-2020 (phone)
(775) 954-2023 (fax)

FEDERAL ELECTED OFFICIALS

CALIFORNIA

Senator Barbara Boxer
1700 Montgomery St. Suite 240
San Francisco, CA 94111
(415) 403-0100 (phone)
(415) 956-6701 (fax)

Senator Diane Feinstein
One Post Street # 2450
San Francisco, CA 94111
(415) 393-0707 (phone)
(415) 393-0710 (fax)

Representative Doug Ose - District 3
4400 Auburn Blvd., Ste. 110
Sacramento, CA 95841
(916) 489-3684 (phone)
(916) 489-4911 (fax)

NEVADA

Senator Harry Reid
600 E. Williams Street # 302
Carson City, NV 89701
(775) 882-7343 (phone)
(775) 686-5757 (fax)

Senator John Ensign
600 E. Williams Street # 304
Carson City, NV 89701
(775) 885-9111 (phone)
(775) 883-5590 (fax)

Representative Jim Gibbons - District 2
491 4th Street
Elko, NV 89801
(775) 777-7920 (phone)
(775) 777-7922 (fax)

APPENDIX B
Community Groups and Environmental Organizations

APPENDIX B – COMMUNITY GROUPS AND ENVIRONMENTAL ORGANIZATIONS

COMMUNITY AND ENVIRONMENTAL GROUPS

American Whitewater
1424 Fenwick Lane
Silver Spring, MD 20910
(301) 589-9453
Call for Referral to Local Chapter

Great Basin Mine Watch
505 S. Arlington Ave., #110
Reno, NV 89509
(775) 348-1986

Great Basin Native Basket Weavers Association
Reno-Sparks Indian Colony
P.O. Box 7676
Reno, NV
(775) 827-0411

Lahontan Audubon Society
P.O. Box 2304
Reno, NV 89505
(775-324-2473

Sierra Club
Toiyabe Chapter
P.O. Box 8096
Reno, NV 89507
(775) 323-3162

Trout Unlimited
1120 College Avenue
Santa Rosa, CA 95404
(707) 543-5877

P.O. Box 117
Baker, NV 89311
(775) 234-7264

APPENDIX C
Repositories and Meeting Locations

APPENDIX C – REPOSITORIES AND MEETING LOCATIONS

INFORMATION REPOSITORIES

Alpine County Library
270 Laramie Street
P.O. Box 187
Markleeville, CA 96120
(530) 694-2120
Hours: 10 a.m. - 6 p.m.
Tuesday, Wednesday, Thursday
10 a.m. - 5 p.m. Friday and Saturday

U.S. Environmental Protection Agency, Region 9
Superfund Records Center
95 Hawthorne Street
San Francisco, CA 94105
(415) 536-2000 (Call for appointment)
Hours: 8 a.m. - 5 p.m. Monday - Friday

Douglas County Public Library
1625 Library Lane
P.O. Box 337
Minden, NV 89423
(775) 782-9841
Hours: 9 a.m. - 8 p.m.
Monday, Tuesday, Wednesday
9 a.m. - 6 p.m. Thursday, Friday, Saturday

Nevada State Library & Archives (Federal Publications)
100 N. Stewart Street
Carson City, NV 89701
(775) 684-3360
Hours: 8 a.m. - 5 p.m. Monday - Friday

POSSIBLE MEETING LOCATIONS

Alpine County - Turtle Rock Park
17300 Highway 89
Woodfords, CA 96120
(530) 694-2140

Carson Valley Middle School
1475 U.S. 395 South
Gardnerville, NV 89410
(775) 782-2265

Washoe Tribal Health
1559 Watasheamu Road
Dresslerville, NV 89460
(775) 265-4191

Carson City Convention Center and Visitor's Bureau
1900 S. Carson Street, Suite #200
Carson City, NV 89701
(775) 687-7410

APPENDIX D
Media Contacts

APPENDIX D – MEDIA CONTACTS

NEWSPAPERS

Tahoe Daily Tribune
Gregory Crotton
3079 Harrison Ave.
South Lake Tahoe, CA 96158
(530) 541-3880

Tahoe Mountain News
Catherine Abel
P.O. Box 8974
South Lake Tahoe, CA 96158
(530) 542-7033

Sacramento Bee
2100 Q. Street
Sacramento, CA 95816
(775) 882-2111

The Nevada Appeal
Kurt Hildebrand
200 Bath Street
Carson City, NV 89703
(775) 882-2552

The Record Courier
1503 Highway 395 N. Suite G
Gardnerville, NV 89410
email: rc@tahoe.com
(775) 782-5121
(775) 782-6152

Reno-Gazette Journal
Jeff DeLong
311 N. Carson
Carson City, NV 89701
(775) 788-6328

Associated Press
P.O. Box 22000
Reno, NV 89520
(775) 322-3639

TELEVISION STATIONS

Channel 6 News
11725 Donner Pass Road
Truckee, CA 96161
(530) 587-6066

KTVN Channel 2 News (CBS)
4925 Energy Way
Reno, NV 89502
(775) 858-2222

KRNV Channel 4 News (NBC)
1790 Vasser Street
Reno, NV 89502
(775) 322-4444

KOLO Channel 8 News (ABC)
4850 Ampere Drive
Reno, NV 89502
(775) 858-8880

APPENDIX E
The Superfund Process

APPENDIX E

The Superfund Process

Site Discovery	Preliminary Assessment/ Site Investigation (PA/SI)	National Priorities List (NPL)	Remedial Investigation (RI)	Feasibility Study (FS)	Public Comment Period	Record of Decision (ROD)	Remedial Design/ Remedial Action	5-Year Review	NPL De-listing
Evidence of potential contamination is reported.	EPA evaluates all actual and potential sources of contamination onsite.	Site placed on EPA's National Priorities List, making it eligible for cleanup action under Superfund.	EPA investigates the nature and extent of contamination.	EPA identifies and analyzes alternatives (including taking no action) for addressing site contamination.	The public comments on alternatives, including EPA's preferred alternative, during formal public comment period. EPA considers these comments and prepares responsiveness summary.	EPA documents the selected remedy in the Record of Decision.	EPA oversees development of detailed specifications for the selected remedy. EPA oversees construction and operation of the remedy.	EPA reviews the effectiveness of the remedy every five years after the cleanup action.	EPA removes the site from the Superfund (NPL) List when cleanup goals are achieved.

Leviathan Mine Site

Community Involvement Activities Occur Throughout the Superfund Process

Enforcement Activities Occur Throughout the Superfund Process

APPENDIX F
Community Involvement Resources

APPENDIX F – COMMUNITY INVOLVEMENT RESOURCES

TECHNICAL ASSISTANCE/OUTREACH DOCUMENTS

Technical Assistance Grant (TAG)
Program Fact Sheet
(Included in this appendix)

Technical Outreach Services
For Communities (TOSC)
(Included in this appendix)

EPA'S TECHNICAL ASSISTANCE GRANT (TAG) WEBSITE

http://www.epa.gov/superfund/tools/tag/index.htm

ADDITIONAL CONTACT INFORMATION

Vicki Rosen
Community Involvement Coordinator
EPA Region 9
(415) 972-3244

David Cooper
TAG Coordinator
EPA Region 9
(415) 972-3237

You may leave a message
toll-free at (800) 231-3075
and your call will be returned.

EPA United States Environmental Protection Agency

Technical Assistance Grant (TAG) Program: Fact Sheet

What Is a Technical Assistance Grant?

Often, there are many technical issues at Superfund sites that are hard for people to understand. The EPA's Technical Assistance Grant (TAG) program provides money to community groups so they can pay for technical advisors to interpret and explain technical reports, site conditions, and EPA's proposed cleanup proposals and decisions.

EPA's cleanup decisions depend on several different things, including what studies say about site conditions, the kinds of wastes found, and the cleanup methods that would work at a particular site. A technical advisor can help community members participate in decision making by helping them to better understand what is going on at the site.

Who May Apply for a TAG?

Your group may apply for a TAG if your members' health, economic well being, or enjoyment of the environment is, or may be, hurt by a Superfund site. Your group does not need to be incorporated to apply for a TAG; however, to receive a TAG, your group must incorporate for the purpose of participating in decision-making at the site. Groups that are already incorporated for other purposes may also be eligible under certain circumstances.

EPA encourages applications from groups that are interested in becoming more involved in the decision-making process for a nearby Superfund site, but need help understanding the technical issues and want to share

information with the whole community. Here are a few types of community groups that can apply for a TAG:

- A community group or citizens' association which was formed because of issues and concerns it had about the site.
- A group that has been actively involved at the site and that includes all the affected individuals and groups who joined in applying for the TAG.
- A group made up of several groups (like those described above) that came together to deal with community concerns about the site and its effects on the surrounding area.

Groups That Are Not Eligible for a TAG Are:

- Potentially responsible parties (PRPs), who are the individuals, cities/townships, or companies that may be responsible for, or may have contributed to, pollution problems at the Superfund site. PRPs can include facility owners, operators, transporters, or generators of hazardous waste.
- Groups representing or receiving money or services from a PRP.
- Academic institutions like colleges or universities.
- Groups affiliated with a national organization.
- Political subdivisions like states, counties, cities, townships or tribes.
- Groups created by, representing, or receiving money or services from any of the groups described above that are not eligible.

How Does My Group Apply for a TAG?

EPA may award only one TAG per Superfund site. To make sure that all eligible groups have an equal opportunity to apply for a single TAG, the application process follows these steps:

Step 1: Your group writes EPA a letter telling of its interest in a TAG. This "letter of intent" should include the name of the Superfund site or sites the TAG is for. It also should include the name, daytime telephone number, and address of your group's contact person. EPA will send you the TAG Application Package.

Step 2: EPA informs the rest of the community that your group is interested in a TAG. EPA usually notifies the community by publishing an ad in a local newspaper. The notice also explains that other groups interested in a TAG may contact your group and join with you or may submit their own Letter of Intent.

Step 3: Other interested groups in your community then have 30 days to get in touch with your group to talk about working together to submit one application to EPA. If your group and other interested groups decide they don't want to form a coalition, other

groups that intend to apply for the TAG must write EPA a letter of intent within this 30-day period.

Step 4: After the initial 30-day period, interested groups will have another 30 days to submit applications. If EPA receives more than one application, it will rank each applicant based on whether the group represents the affected community, the group's plans for using a technical advisor, and the group's ability and plans to inform other community members about site-related information provided by the technical advisor. EPA is available to provide help to all groups preparing TAG applications.

How Much Money Can My Group Receive?

Initially, EPA will award a TAG for up to $50,000. Additional funds may be available. There can be only one TAG for each Superfund site.

To get a TAG, your group must contribute a matching share to the project. Your match must equal at least 20 percent of the total project costs. This match usually is not difficult to provide: most groups make their match by donating volunteer hours and other "in-kind" services. Sometimes, EPA can waive the matching-share requirement or require your group to contribute a smaller match. EPA will help your group determine what "in-kind" and donated services can be counted as match.

How Does My Group Get Its TAG Money?

EPA reimburses your group for its eligible costs. Reimbursement means that your group must first incur a cost and then ask EPA to pay for it. For the most part, your group may not get money up front. However, new recipients of TAGs may ask for a one-time advance payment of up to $5,000. To get an advance payment, you must explain in your TAG application how your group plans to spend the advance payment. Your group can use the advance payment to pay some of the costs for starting up your group. Start-up costs might include opening a bank account, buying or leasing office supplies and equipment, or advertising for a technical advisor. You cannot use an advance payment to pay for incorporating your group or to pay a technical advisor or for other contractor services. (Although your group cannot use the advance payment to pay incorporation costs, your group can be reimbursed for incorporation costs later.)

What Can My Group Do with a TAG?

Your group must use most of its TAG money to pay for one or more technical advisors to help you understand information about the site. For example, you may want someone to

explain how the site affects the air or water in the site area and someone else to evaluate any health issues related to the site. The technical advisor reviews and explains existing information about the site developed as part of the Superfund cleanup process. Technical advisors should produce reports that are easily understood by the community. Technical advisors cannot, however, conduct additional studies or generate any new data or information.

Here are some examples of what your group might pay a technical advisor to do:

- Review site-related documents from EPA or others.
- Meet with your group and other community members to explain site information.
- Make site visits, when appropriate and necessary, to learn more about site activities.
- Travel to meetings and hearings about the site.
- Evaluate plans for reusing the site after it is cleaned up.
- Interpret and explain health-related information.

Your group may use a small amount of its TAG funds to pay for supplies, office equipment, and rent. Your group also may pay someone to manage your TAG. If your group incorporates as a non-profit organization just so it can receive a TAG, the expenses for incorporation can also be charged to your TAG if your group is chosen to receive one. If EPA does not award a TAG to your group, however, you will not be reimbursed for the incorporation costs.

What Can't We Do with TAG Money?

There are several activities you cannot pay for with TAG money. Here are some examples:

- Travel expenses of group members (only technical advisor travel expenses can be paid).
- Lawsuits or other legal actions, including preparing testimony or hiring expert witnesses.
- Lobbying.
- Social activities, fund raising, or amusement.
- Tuition or training expenses for group members or technical advisors (except for one-time health and safety training for the advisor to gain access to the site).
- Collection of new health or primary data through, for example, medical testing or well drilling and testing.
- Reopening or challenging final EPA decisions.

How Does EPA Decide If Our Group Can Get a TAG?

The TAG application asks for information that will help EPA decide whether your group can manage a TAG. The application also asks your group to describe its history, goals, plans for using TAG funds, and how your group plans to share information learned from the technical advisor with the rest of your community. Your group must include in the application to EPA a work plan and a budget that shows the time and resources the group will commit to TAG activities.

How Do We Find and Hire a Qualified Technical Advisor?

After EPA awards your TAG, your group needs to choose a qualified technical advisor. EPA has a list of sources where your group might find qualified advisors. You should choose a technical advisor who has the skills to address the specific issues and concerns at your site. A technical advisor must have these qualifications:

- Demonstrated knowledge of hazardous or toxic waste issues or relocation, redevelopment, or public health issues at your group's site.
- College or university training, and preferably a degree, in the relevant fields.
- The ability to explain technical information to your community in ways you understand.

Like all grants awarded by EPA, TAGs have certain regulatory requirements. Besides finding an advisor with the right background for your community's needs, you must also find and hire your technical advisor in accordance with EPA's grant regulations. The grant regulations require that you go through certain steps that make sure you find your advisor through a fair and competitive process.

How Does My Group Manage Its TAG?

Your group must keep track of how it spends TAG funds. This means your group must:

- Create a bookkeeping system and keep complete financial records of how TAG funds and your required matching funds or in-kind services are used.
- Ask EPA for reimbursement so you can pay your technical advisor on time and in full.
- Prepare and give quarterly progress reports and other reports to EPA.

Your group can use a small amount of TAG funds to pay a grant administrator to manage the TAG. But remember: Most TAG money must go toward your technical advisor, so the cost for a grant administrator should be both reasonable and necessary, and you must follow federal procurement regulations when hiring a grant administrator.

What If My Group Needs More Information?

Visit the TAG program web site at: www.epa.gov/superfund/tools/tag/htm. Your EPA regional office is available to answer your questions. Here is the list of TAG contacts at EPA regional offices:

Regional TAG Contacts

Region 1 [CT, MA, NH, VT, RI, ME]

Mike McGagh
U.S. EPA Region 1 (MC: HBS)
One Congress Street
Boston, MA 02114-2023
Phone: 617-918-1428

Region 2 [NY, NJ, PR, VI]

Carol Hemington
U.S. EPA Region 2 (MC: 2OPM-GCMB)
290 Broadway
New York, NY 10007-1866
Phone: 212-637-3420

Region 3 [DC, DE, MD, PA, VA, WV]

Amelia Libertz
U.S. EPA Region 3 (MC: 3H543)
1650 Arch Street
Philadelphia, PA 19103-2029
Phone: 215-814-5522

Region 4 [AL, FL, GA, KY, MS, NC, SC, TN]

Rosemary Patton, Sharon Chandler,
Rhonda Foucher, Denise Bland
U.S. EPA Region 4 (MC: WDCSB)
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3507
Phone: 404-562-8866 (Rosemary)
Phone: 404-562-8888 (Sharon)
Phone: 404-562-8867 (Rhonda)
Phone: 404-562-8880 (Denise)

Region 5 [IL, IN, MI, MN, OH, WI]

Susan Pastor, Suzanne Coll
U.S. EPA Region 5 (MC: P19J)
Metcalfe Federal Bldg
77 W. Jackson Boulevard
Chicago, IL 60604
Phone: 312-353-1325 (Susan)
Phone: 312-886-6044 (Suzanne)
or 800-621-8431

Region 6 [AR, LA, NM, OK, TX]

Beverly Negri
U.S. EPA Region 6 (MC: 6SF-PO)
Tower at Fountain Place
1445 Ross Ave., Suite 1200
Dallas, TX 75202-2733
Phone: 214-665-8157

Region 7 [IA, KS, MO, NE]

Hattie Thomas
U.S. EPA Region 7 (MC: PBAF)
901 N. Fifth Street
Kansas City, KS 66101
Phone: 913-551-7762

Region 8 [CO, MT, ND, SD, UT, WY]

Linda Armer
U.S. EPA Region 8 (MC: EPR-PS)
999 18th Street, Suite 500
Denver, CO 80202-2466
Phone: 303-312-6696

Region 9 [AZ, CA, HI, NV]

David Cooper
U.S. EPA Region 9 (MC: SFD-3)
75 Hawthorne Street
San Francisco, CA 94105
Phone: 415-972-3237 or 800-231-3075

Region 10 [AK, ID, OR, WA]

Marianne Deppman, Debra Sherbina
U.S. EPA Region 10 (MC: ECO-081)
1200 6th Avenue
Seattle, WA 98101
Phone: 206-553-1237 (Marianne)
Phone: 206-553-0247 (Debra)

Headquarters

Freya Margand, National TAG Coordinator
U.S. EPA (MC: 5204G)
1200 Pennsylvania Avenue N.W.
Washington, DC 20460
Phone: 703-603-8889

For help, contact the TOSC/TAB group in your area or visit the TOSC/TAB national website at:

http://www.toscprogram.org

Northeast Center

EPA Regions 1, 2, & 3
Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Puerto Rico, Pennsylvania, Rhode Island, the U.S. Virgin Islands, Vermont, Virginia, and West Virginia

Hedy Alavi
Johns Hopkins University
1-410-516-7091
hedy.alavi@jhu.edu
http://www.jhu.edu/~dogee/centers/hsrc/

South & Southwest Center

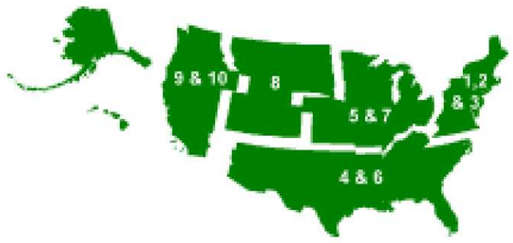
EPA Regions 4 & 6
Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas

Bob Schmitter
Georgia Institute of Technology
1-888-683-5963
bob.schmitter@gtri.gatech.edu
http://www.hsrc-ssw.org

Midwest Center

EPA Regions 5 & 7
Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin

Jordan Radin
Purdue University
1-800-213-2818
mhsrc@ecn.purdue.edu
http://bridge.ecn.purdue.edu/~mhsrc



Map of EPA Regions covered by each center.

Rocky Mountain Center

EPA Region 8
Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

Karl E. Burgher, Ph.D., P.E.
Project Manager, TOSC/TAB, RMRHSRC
(406) 496-4410
(406) 496-4116 - fax
kburgher@mtech.edu
http://www.engr.colostate.edu/hsrc/

Western Center

EPA Regions 9 & 10
Alaska, Arizona, California, Guam, Hawaii, Idaho, Micronesia, Marianas Islands, Nevada, Oregon, Samoa, and Washington

Stephanie Sanford
Oregon State University
1-800-653-6110
Stephanie.Sanford@orst.edu
http://tosc.orst.edu

Technical Outreach Services to Native American Communities

Brenda Brandon
Haskell Indian Nations University
1-785-749-8498
bbrandon@ross1.cc.haskell.edu
brendabrandon@msn.com (alternate)

Other Common Questions about TOSC and TAB

Who pays for the programs?

TOSC and TAB are both outreach programs of the university-based **Hazardous Substance Research Centers** (HSRCs). The HSRCs are funded by grants from the Environmental Protection Agency with additional funding from academia, industry, and other state and federal government agencies.

Are TOSC and TAB advocacy groups?

No. TOSC and TAB are educational programs. They help communities understand complex issues but do not lobby or advocate for specific solutions.

What is the difference between TOSC and TAB?

TOSC assists communities affected by hazardous waste sites or other types of environmental contamination.

TAB assists communities hoping to cleanup and redevelop brownfields — properties that have been damaged or undervalued by real or perceived environmental contamination.

Dr. Mitch Lasat, Program Manager
Hazardous Substance Research Centers

8722R
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460
Telephone: 202-564-6826
Email: lasat.mitch@epa.gov

http://www.toscprogram.org

Technical Outreach Services for Communities

Technical Assistance to Brownfields Communities

"Never doubt that a small, thoughtful group of committed citizens can change the world. Indeed, it's the only thing that ever has."

Margaret Mead

http://www.toscprogram.org

Outreach programs of the Hazardous Substance Research Centers.

Is there a hazardous waste site or abandoned property in your community? Do you have questions about health, risks, and the cleanup process? Have you looked for answers only to find complex technical data you didn't understand? Technical Outreach Services for Communities (TOSC) and Technical Assistance to Brownfields Communities (TAB) are two free programs that can help.

How can TOSC and TAB help your community?

◊ By linking your community with universities.

The TOSC and TAB programs link community groups with professors and technical assistance specialists from the **Hazardous Substance Research Centers** (HSRCs), a group of university centers focused on hazardous substance management. These specialists have experience with cleanup and redevelopment of contaminated sites. They can serve communities as a free, independent source of information and assistance.

◊ By serving the needs of environmental justice communities.

TOSC and TAB strive to serve the needs of minority and low-income communities. For example, Technical Outreach Services for Native American Communities (TOSNAC) works directly with TOSC/TAB to develop training material and provide outreach that is culturally harmonious with the needs and values of a variety of Native American communities. Past TOSNAC projects have focused on mining and sustainability issues, brownfields development, federal facilities cleanup, and groundwater protection.

◊ By empowering community groups and their leaders.

TOSC and TAB can provide leadership training that will help community members become active participants in the cleanup or redevelopment process. For example, staff can provide training in conflict resolution and mentor community leaders as they work with regulators and other stakeholders.

In Guayanilla, Puerto Rico, TOSC worked with the Comite Pro-Costal Ventana citizen's group and a local university to empower the Barrio Boca community to address environmental issues in their neighborhood. The community had been negatively affected by pesticide spraying on a nearby farm. TOSC also provided technical review and comments on sampling methods used in the community.

◊ By reviewing and explaining technical reports.

TOSC and TAB can help your community understand and respond to technical reports. For example, TOSC and TAB staff can review cleanup proposals or site assessments and help communities prepare for public meetings. Staff can also ask faculty from any of the 21 affiliated universities to provide their expertise on technical issues.

In Davie, Florida, TOSC assisted a community affected by contamination from a former waste oil reprocessing facility. TOSC reviewed sampling results and presented a workshop on the cleanup process. TOSC staff have also attended meetings with community members and regulators and reviewed reports on proposed cleanup measures.

◊ By providing information and training.

TOSC and TAB can provide information about the cleanup or redevelopment process. TOSC and TAB staff have experience in environmental engineering, public health, and community development. They can answer questions and hold community workshops about topics such as:

- ◊ health concerns,
- ◊ environmental risks and risk assessment,
- ◊ the regulatory process, and
- ◊ potential cleanup technologies.

In Oregon, TAB helped organize "Bright Ideas for Redevelopment" a conference for local government officials and others interested in reclaiming abandoned properties in their communities. Participants discussed many aspects of the brownfields redevelopment process including:

- ◊ public and private sector financing,
- ◊ insurance,
- ◊ environmental assessment and cleanup, and
- ◊ community involvement in the redevelopment process.

APPENDIX G
Acronyms

APPENDIX G – ACRONYMS

AOC	Administrative Order on Consent
AMD	Acid Mine Drainage
AR	Administrative Record
ARC	Atlantic Richfield Company
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CIP	Community Involvement Plan
CUD	Channel Underdrain
EE/CA	Engineering Evaluation/Cost Analysis
EPA	United States Environmental Protection Agency
ERA	Emergency Response Action
LRWQCB	Lahontan Regional Water Quality Control Board
NPL	National Priorities List
ppb	Parts per Billion
PRP	Potentially Responsible Party
RA	Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
SARA	Superfund Amendments and Reauthorization Act
TAG	Technical Assistance Grant
TOSC	Technical Outreach Services for Communities

APPENDIX H
Glossary

APPENDIX H – GLOSSARY

Adit	Carved tunnels used for mining.
Aspen Seep	Acid mine drainage that runs into the Aspen Creek drainage on the north side of the Leviathan Mine site.
Bioaccumulation	The process whereby certain substances such as pesticides or heavy metals move up the food chain, work their way into rivers or lakes, and are eaten by aquatic organisms such as fish, which in turn are eaten by large birds, animals or humans. The substances become concentrated in tissue or internal organs as they move up the food chain.
Bi-phasic Treatment	The two-step lime neutralization process that is being used to treat acid mine drainage at the Leviathan Mine site. This process creates less concentrated toxic sludge and is consistent with appropriate environmental regulations.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act: A federal law enacted in 1980 and amended by the Superfund Amendments and Reauthorization Act in 1986 (SARA).The act created a special tax (which expired in 1995) that goes into a trust fund (Superfund) to investigate and clean up hazardous waste sites. Under the program, EPA can either: 1) pay for site cleanup when responsible parties or potentially responsible parties (PRPs) for the contamination cannot be located or are unwilling or unable to perform work; or 2) take legal action to force PRPs to clean up the site or reimburse the federal government for the cost of the cleanup.
Comstock Lode	Large silver and gold deposit claimed by Henry T. “Pancake” Comstock in 1859.The discovery fueled the Nevada silver boom in the late 1880s.
Delta Seep	Acid mine drainage that occurs at the lowest elevation of the Leviathan Mine site and runs into Leviathan Creek.
Early Response Action or Emergency Removal	Action taken to immediately remove or stabilize contamination and to reduce or eliminate imminent threats to human health and the environment.
Mine Tailings	Waste rock and residue from mining excavation.
NPL	National Priorities List - a list of the most serious hazardous waste sites in the U.S. that require long-term cleanup.These sites have been evaluated according to the Hazard Ranking System criteria and qualify for the expenditure of Superfund money.
NPL Sites	Sites that require long-term cleanup are proposed for addition to the NPL.

RI/FS	A document outlining two steps in the Superfund process: the Remedial Investigation (RI), which examines the nature and extent of contamination problems at a hazardous waste site, and the Feasibility Study (FS), which evaluates possible cleanup alternatives, and recommends a remedy to address the particular site conditions.
Record of Decision	The Record of Decision (ROD) is a document signed by the EPA Regional Adminstrator which documents EPA's decision to employ a particular remedy to clean up an NPL site.
Sulfur	A non-metallic element that occurs either in free state, as yellow crystals, or combined with other elements such as sulfides or sulfates.
Remediation	Cleanup or other methods used to remove or contain a toxic spill or hazardous materials from a site.
Removal Action	Removal actions are emergency or short-term responses to immediate threats to public health, welfare and the environment. Removal actions may take place in response to spills of hazardous substances, or at long-term cleanup sites which are called Superfund remedial sites.
Superfund	See CERCLA (listed above).